



**The POLICY Project**

# **The Economic Impact of AIDS in Zimbabwe**

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AIDS has the potential to create severe economic impacts in many African countries. It is different from most other diseases because it strikes people in the most productive age groups and is essentially 100 percent fatal. The effects will vary according to the severity of the AIDS epidemic and the structure of the national economies. The two major economic effects are a reduction in the labor supply and increased costs:

#### Labor Supply

- The loss of young adults in their most productive years will affect overall economic output
- If AIDS is more prevalent among the economic elite, then the impact may be much larger than the absolute number of AIDS deaths indicates

#### Costs

- The direct costs of AIDS include expenditures for medical care, drugs, and funeral expenses
- Indirect costs include lost time due to illness, recruitment and training costs to replace workers, and care of orphans
- If costs are financed out of savings, then the reduction in investment could lead to a significant reduction in economic growth

LABOR FORCE STATISTICS				
	Economically Active Labor Force: 1994 <sup>a</sup>		Employment by Industry: 1995 <sup>b</sup>	
Sector	'000s	%	'000s	%
<b>AGRICULTURE</b>				
Agriculture, hunting, forestry and fishing	2,804.8	68.6	334.0	26.9
<b>INDUSTRY</b>				
Mining and quarrying industries	68.8	1.7	59.0	4.8
Manufacturing industries	221.0	5.4	185.9	15.0
<b>SERVICES</b>				
Electricity, gas and water	13.8	0.3	9.5	0.8
Construction	86.0	2.1	71.8	5.8
Trade, restaurants and hotels	130.2	3.2	100.6	8.1
Transport, storage and communications	78.6	1.9	50.9	4.1
Finance, insurance, real estate and business services	32.1	0.8	21.9	1.7
Community, social and personal services	644.5	15.8	406.8	32.8
<b>TOTAL</b>	<b>4,091.3</b>	<b>100.0</b>	<b>1,239.6</b>	<b>100.0</b>
Source: a – Europa World Year Book, 1998; b – Central Statistical Office, 1998, Zimbabwe Statistical Yearbook, Harare, Zimbabwe				

It has been calculated that average real earnings in 1996 in Zimbabwe are lower than they were before independence in the mid-1960s. The economy is characterized by extreme income inequalities; 20% of the population receives 60% of the income. A recent national poverty assessment

showed that over 60% of the population currently live below the poverty line. This distribution of income and resources highlights the vulnerability of the rural and urban

poor, especially as the poor spend 33 - 50% of their total expenditure on food and health care. The budget deficit has averaged around 8% of GDP, contributing to an annual inflation rate averaging 25% since 1992, and is likely to increase during the current fiscal year. The principal agricultural export is tobacco, which accounted for 23.3% of export earnings in 1995. The most important manufacturing industries, which contributed 26.4% of GDP in 1996, were food-processing, metals, chemicals, and textiles.<sup>1</sup>

The economic effects of AIDS will be felt first by individuals and their families, then ripple outwards to firms and businesses and the macro-economy. This paper will consider each of these levels in turn and provide examples from Zimbabwe to illustrate these impacts.

### **Economic Impact of AIDS on Households**

The household impacts begin as soon as a member of the household starts to suffer from HIV-related illnesses:

- Loss of income of the patient (who is frequently the main breadwinner)
  - Household expenditures for medical expenses may increase substantially
  - Other members of the household, usually daughters and wives, may miss school or work less in order to care for the sick person
  - Death results in: a permanent loss of income, from less labor on the farm or from lower remittances; funeral and mourning costs; and the removal of children from school in order to save on educational expenses and increase household labor, resulting in a severe loss of future earning potential.
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- In 1995, 62% of the national population existed below the national total consumption poverty line of Z\$2132.33 per person per year. About 46% of the population live below the national food poverty line, indicating that these households are unable to meet their basic nutritional needs. A bedridden AIDS patient is an additional burden and is estimated to cost an additional US\$ 23 - 34 per patient per month. Furthermore, in low-income households, additional expenditures on transport, food and medical costs meant cutting down on meals.<sup>2</sup> Funeral costs can be as much as Z\$4,500, with the coffin alone costing from Z\$400 to Z\$1,500. Tombstones have become unaffordable; people instead use a concrete slab or a pile of soil.<sup>3</sup> These expenditures lead to a higher dependency ratio, reduced labor, and rapid impoverishment.

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<sup>1</sup> Raftopoulos R, Hawkins T, Matshalaga N (1999) "Drought management, the Economy and NGO Responses in Zimbabwe: the 1997/1998 Experience", UNDP; Europa World Year Book 1998, Volume 2 (1998) Europa Publications Limited (London).

<sup>2</sup> Hansen K, Woelk G, Jackson H, Kerkhoven R, Majanjeri N, Maramba P, Mutambirwa J, Ndimande N, Vera E (1998) The Cost of home-based care for HIV/AIDS patients in Zimbabwe, AIDS Care; 10(6):751-59; and Harnmeijer, J (1997) "The Economic Impact of HIV/AIDS on Households in Zimbabwe," Waterford Kamhlala, United World College of Africa.

<sup>3</sup> Ncube, J (1997) "Death as a profitable business venture," AIDS Analysis Africa.

- Land tenure rights after husbands die can cause severe financial difficulties for the surviving widows. Research on farm workers in Mashonaland Central Province documented the hardships these widows faced, especially when relatives claim all of the husband's belongings. Because most women do not have legal documents to protect their rights, such as marriage certificates or wills, her rights are not protected. Evidence shows that children of single widowed mothers tended to drop out from school early.<sup>4</sup>
- Close to 1 in 4 rural households are already fostering one or more children that are not the biological children of either parent(s).<sup>5</sup> The high HIV prevalence means that many children who lose one parent eventually lose the other. Child-headed households will face all of the social and economic dislocation suffered by all families in the face of death and loss of income, but in addition these children will be open to abuse, exploitation, neglect, malnutrition and the lack of adult love and affection, socialisation, guidance, education and support.

### **Economic Impact of AIDS on Agriculture**

Agriculture is the largest sector in most African economies accounting for a large portion of production and a majority of employment. Studies done in Tanzania and other countries have shown that AIDS will have adverse effects on agriculture, including loss of labor supply and remittance income. The loss of a few workers at the crucial periods of planting and harvesting can significantly reduce the size of the harvest. In countries where food security has been a continuous issue because of drought, any declines in household production can have serious consequences. Additionally, a loss of agricultural labor is likely to cause farmers to switch to less-labor-intensive crops. In many cases this may mean switching from export crops to food crops. Thus, AIDS could affect the production of cash crops as well as food crops.

- In Zimbabwe, the large-scale commercial farming sector is the major source of food production and security. Commercial agriculture operates on a strictly profit-making basis; thus HIV/AIDS will affect commercial farms in the same way it will affect business firms. For the farmer, increased costs will be felt from paying employee benefits, staff turnover and recruitment, training, funerals etc. The level of these costs will be determined by the skill level of affected farm workers and the type of contract, as full-time workers receive higher terminal benefits such as funeral assistance, pension, and widow support. If casual labourers are the most affected, and seasonal labour peaks are less marked, farmers may not experience much disruption to productivity. For farmers who provide basic welfare services, the impact of AIDS

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<sup>4</sup> Farm Orphan Support Trust(1998), "Farm Orphans: Who is coping?: A study of commercial farm workers and their responses to orphanhood and foster care in Mashonaland Central Province of Zimbabwe," FOST, Harare.

<sup>5</sup> SAfAIDS & CFU (1996), Orphans on Farms: Who Cares? An exploratory study into Fostering Orphaned Children on Commercial Farms in Zimbabwe

on individual farmworker families and children will create the need for greatly expanded health and welfare expenditures far beyond the statutory requirements. As yet there, no data are available indicating the aggregate sectoral impact of HIV/AIDS on the commercial agricultural sector.

- More than 50% of Zimbabwe's population reside in rural areas and are dependent on smallholder agriculture for their livelihood. Impact studies reveal a decline in cultivated acreage for the 1997/98 season due to reasons related to HIV/AIDS: shortage of labour, lack of essential inputs, draught power and farm implements. Besides the decline in crop acreage, AIDS-affected households showed poor crop management and harvest, experiencing losses in marketed output of more than 50% in maize, cotton and sunflowers. The loss of husbands, who are often solely responsible for marketing, led to marked declines in revenue and marketed produce, especially maize and cotton. So far Zimbabwean data do not indicate a dramatic switch from cash to subsistence crops.<sup>6</sup>
- Negative impacts from HIV/AIDS are also found in livestock production, due to frequent funerals that reduce labour input and associated responsibilities, such as herding and management. This failure to herd results in increased thefts and cattle deaths, whilst not dipping exposes animals to tick born diseases. Forced sale of livestock occurs to raise cash for medical and funeral expenses, often to middlemen, at highly compromised prices. Besides disposal of living 'assets or savings', key production implements, such as ploughs, cultivators, scotch-cart and wheelbarrow, are often sold off.<sup>7</sup>
- As funeral attendance is an obligatory custom in many parts of rural Zimbabwe reduced contact hours between farmers and extension workers are experienced. On average extension workers spend 3 days per month (10% of total working time per month) attending funerals in their working areas. Additional contact hours are lost due to staff attrition and time the farmers spend attending funerals. Normally females

<b>Reduction in Smallholder Marketed Output Due to AIDS Deaths</b>	
<b>Crops</b>	<b>Reduction in Marketed Output</b>
Maize	61%
Cotton	47%
Vegetables	49%
Groundnuts	37%
Cattle Owned	29%
Source: Zimbabwe Farmers Union	

<sup>6</sup> Kwaramba, P (1997) "The Socio-Economic Impact of HIV/AIDS on Communal Agricultural Systems in Zimbabwe," Zimbabwe Farmers Union, Friedrich Ebert Stiftung Economic Advisory Project, Working Paper 19, Harare, Zimbabwe; Ncube G (1998) "The Impact of HIV/AIDS on Smallholder Agriculture Production in the Districts of Gweru/Shurugwi in Zimbabwe and Current Recommended Sustainable Coping Strategies and Areas of Research", Eastern and Southern Africa Regional Conference on Responding to HIV/AIDS: Development Needs of African Smallholder Agriculture

<sup>7</sup> Ncube G (1998) "The Impact of HIV/AIDS on Smallholder Agriculture Production in the Districts of Gweru/Shurugwi in Zimbabwe and Current Recommended Sustainable Coping Strategies and Areas of Research", Eastern and Southern Africa Regional Conference on Responding to HIV/AIDS: Development Needs of African Smallholder Agriculture

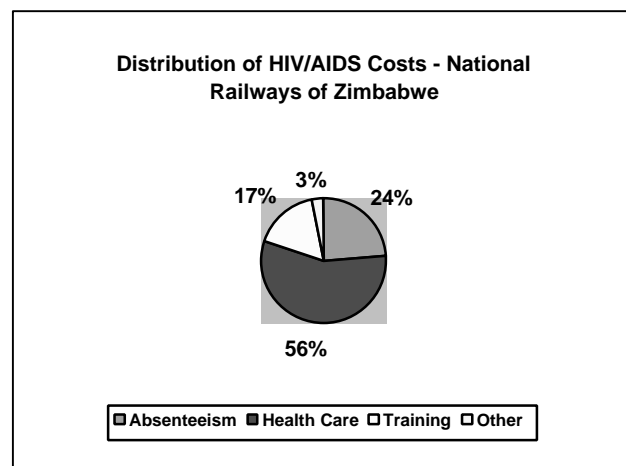
and children, the most vulnerable, do not have the same time and access to extension services; this is now further compromised due to their increasing responsibilities.<sup>8</sup>

### Economic Impact of AIDS on Firms

AIDS may have a significant impact on some firms. AIDS-related illnesses and deaths to employees affect a firm by both increasing expenditures and reducing revenues. Expenditures are increased for health care costs, burial fees and training and recruitment of replacement employees. Revenues may be decreased because of absenteeism due to illness or attendance at funerals and time spent on training. Labor turnover can lead to a less experienced labor force that is less productive.

Factors Leading to Increased Expenditure	Factors Leading to Decreased Revenue
Health care costs	Absenteeism due to illness
Burial fees	Time off to attend funerals
Training and recruitment	Time spent on training
	Labor turnover

- One study found that the major expense for a firm was health care costs. The company in this study has a large staff of 11,500 workers. Since the company offers significant health benefits to its employees, the cost of AIDS is even higher than for other companies that do not provide such benefits. The study estimated that there are currently more than 3,400 workers who are infected with HIV and 64 who died from AIDS in 1996. The total costs of AIDS to the company in 1996 were estimated at Z\$39 million, equal to about 20 percent of the company's profits. More than half of this amount resulted from increased health care costs. By 2005 the cost of AIDS to the company could reach Z\$108 million, without including indirect costs. The report speculates that HIV/AIDS will worsen employee morale and create greater labor-management tensions and cause a labor shortage among skilled positions.<sup>9</sup>



- A review of “Best Practice” company responses to HIV/AIDS shows that prevention costs per employee range from US\$ 0.25 - 66. Prevention programs in Zimbabwe appear to consist of (peer) education around STI/HIV/AIDS, STI treatment, and

<sup>8</sup> Munyombwe T, Pfukenji DM, Ushewokunze-Obatolu (1998) “HIV/AIDS in the context of Livestock Health and Production in the Smallholder Sector of Zimbabwe”, Eastern and Southern Africa Regional Conference on Responding to HIV/AIDS: Development Needs of African Smallholder Agriculture.

<sup>9</sup> Roberts, Matthew and Bill Rau, African Workplace Profiles: Private Sector AIDS Policy, AIDSCAP, Arlington, VA, USA

condom distribution. Noteworthy innovations include ‘couples/worker & spouse’ workshops, campfire counselling meetings, and routine provision of improved nutrition for all employees through the company canteen. The lack of cost effectiveness and impact monitoring data of company HIV/AIDS programs is indicative that the programs are seen as an add-on activity. The majority of “Best Practice” company actions appear to be largely or entirely dependent on external donor funding, raising questions concerning the sustainability and replicability of these programs. The recently gazetted Statutory Instrument makes it compulsory for all companies and organizations to provide HIV/AIDS education and to ensure routine access to condoms.<sup>10</sup>

- The impact of AIDS on employee benefits will consist of increased payments for lump sum on death and increased pension costs. After the life assurance companies assessed that overall 45% of claims were AIDS related, they adopted restrictive mechanisms to protect themselves, such as testing before entry in a specific scheme, excluding identified or perceived high-risk groups, or introducing additional clauses that restrict the benefits if death is related to HIV or AIDS. Zimbabwean pension funds have calculated that up to 70% of death claims in the first five years of a life insurance policy are AIDS related.<sup>11</sup>

For some smaller firms the loss of one or more key employees could be catastrophic, leading to the collapse of the firm. In others, the impact may be small. Firms in some key sectors, such as transportation and mining, are likely to suffer larger impacts than firms in other sectors. In poorly managed situations the HIV-related costs to companies can be high. However, with proactive management these costs can be mitigated through effective prevention and management strategies.

### **Impacts on Other Economic Sectors**

AIDS will also have significant effects in other key sectors. Among them are health, transport, mining, education and water.

- **Health.** AIDS will affect the health sector for two reasons: (1) it will increase the number of people seeking services and (2) health care for AIDS patients is more expensive than for most other conditions. Governments will face trade-offs along at least three dimensions: treating AIDS versus preventing HIV infection; treating AIDS versus treating other illnesses; and spending for health versus spending for other objectives. Maintaining a healthy population is an important goal in its own right and is crucial to the development of a productive workforce essential for economic development.

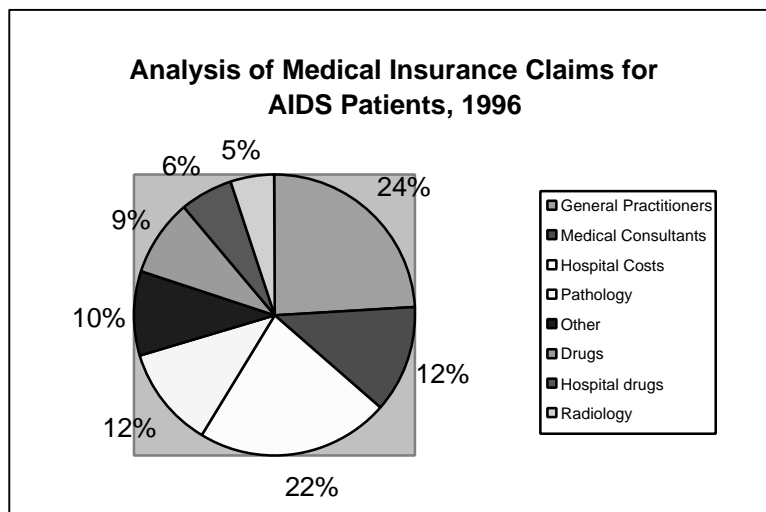
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<sup>10</sup> Loewenson R with Michael K, Whiteside A, Hunter L, Khan N (1999), Best Practices: Company Actions on HIV/AIDS in Southern Africa, 1st edition, TARSC; Statutory Instrument 202 of 1998, Labour Relations (HIV and AIDS) Regulations, 1998.

<sup>11</sup> Roche M (1996), The Impact of AIDS on the Zimbabwean insurance industry, Legal Forum, pp 18 – 25.



- A representative review of Community Home Based Care programs in Zimbabwe showed that most home care programs are more expensive than hospital care, where 56-75% of the total cost per visit is spent on getting to the patient. Furthermore, they generally achieve limited coverage; coverage rates of 2 - 4% of actual need are not uncommon. Overall, the cost of one home visit is equivalent to between 1 and 3 days in a hospital. Cost effective approaches to home care that achieve sufficient coverage and provide adequate care are feasible in urban areas, but require careful planning and monitoring in rural areas and other resource constrained settings.<sup>12</sup>



- The largest private health care organization reported that average direct health costs for an AIDS case were US\$309.50 in 1994, US\$492.80 in 1995, and US\$722 in 1996. Of these costs, general practitioners' fees form a disproportionately high amount, even higher than hospital and drug costs (see chart at left). Their

calculations have shown that investment in a member to ensure that he or she continues to remain productive and is able to maintain contributions to the health care scheme is cost effective, although routine access to AZT for lifetime treatment is not possible.<sup>13</sup>

- An early study of costs for pediatric AIDS cases in Zimbabwe estimated that the total annual cost of treating a child for AIDS was US\$625 in 1990. This cost consisted of US\$4.21 for drugs, and US\$608 on hospital costs, including nursing care.<sup>14</sup>
- **Transport.** The transport sector is especially vulnerable to AIDS and important to AIDS prevention. Building and maintaining transport infrastructure often involves sending teams of men away from their families for extended periods of time, increasing the likelihood of multiple sexual partners. The people who operate transport services (truck drivers, train crews, sailors) spend many days and nights away from their families. Most transport managers are highly trained professionals

<sup>12</sup> Woelk G, Jackson H, Kerkoven R, Hansen K, Manjonjori N, Maramba P, Mutmabirwa, Ndimande E & Vera E (1997), Do We Care? The Cost and Quality of Community Home Based Care for HIV/AIDS Patients and their Communities in Zimbabwe.

<sup>13</sup> Hore R (1997) "AIDS in Private Health Costs in Zimbabwe", SAfAIDS News;5(3), Sept 1997.

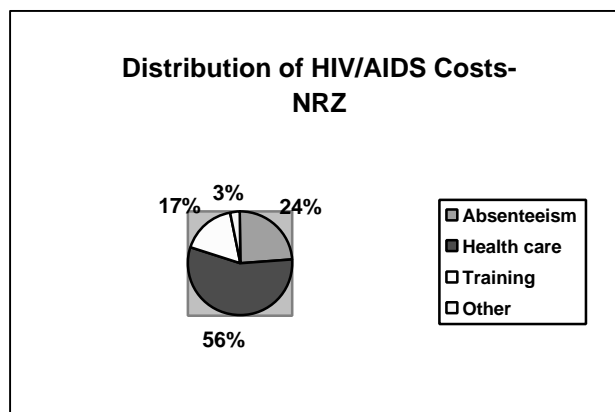
<sup>14</sup> Jensen, BA (1990) "The financial costs of treating AIDS in Zimbabwe," Zimbabwe Essential Drugs Action Programme (ZEDAP), 1990.

who are hard to replace if they die. Governments face the dilemma of improving transport as an essential element of national development while protecting the health of the workers and their families.

<b>Estimated Annual Programme Costs for NECTOI, including 25% outreach work</b>	
Training/supervision of peer educators	US\$ 8,600
Cost of project staff salaries	US\$5,700
Mileage and logistics costs	US\$8,600
<b>TOTAL</b>	<b>US\$22,900</b>

- In Zimbabwe the National Employment Council in the Transport Operating Industry (NECTOI) has a membership of 2,000 registered companies employing 80,000-100,000 employees. After a noticeable loss of staff due to a marked increase in death amongst long distance drivers, the council developed an AIDS awareness and

prevention program. The project covered major transport routes around the country promoting partner reduction, early STI treatment seeking behaviour and use of condoms.<sup>15</sup>



- The National Railways of Zimbabwe (NRZ) is the largest transport company in Zimbabwe and employed 17,000 workers in 1997. In 1990, the company reported operational problems due to an absenteeism rate greater than 15%. A later impact study estimated the company's AIDS costs at Z\$39million, which is equivalent to 20% of the company's profits. In

1997, absenteeism costs increased further to Z\$80 million. The current budget for the direct costs of managing HIV/AIDS Prevention is close to Z\$1.5 million per year. Further direct costs consist of an additional 10% staff complement to cover up for absentees in certain work areas. Training costs to replace skilled workers (direct training and lower productivity) are projected to increase five-fold due to AIDS between 1991 and 2000. Railed, the company's medical aid society, noticed a 18% rise in medical related costs (Z\$5.6 million, 1995, to Z\$6.8million in 1996). As the costs of the medical scheme are shared between employer and employee, costs for both parties are bound to continuously increase.<sup>16</sup>

<sup>15</sup> Loewenson R with Michael K, Whiteside A, Hunter L, Khan N (1999), Best Practices: Company Actions on HIV/AIDS in Southern Africa, 1st edition, TARSC

<sup>16</sup> National Railways Zimbabwe (April, 1997) Presentation at the Intersectoral Committee on AIDS & Employment, (National Meeting on Impact and Interventions in AIDS and Employment), Jameson Hotel, Harare.

- A bus company was reported to be losing 7% of its profits to AIDS related costs due to lost labor, absenteeism, death benefits and replacement of personnel.<sup>17</sup>
- **Mining.** The mining sector is a key source of foreign exchange for many countries. Most mining is conducted at sites far from population centers forcing workers to live apart from their families for extended periods of time. They often resort to commercial sex. Many become infected with HIV and spread that infection to their spouses and communities when they return home. Highly trained mining engineers can be very difficult to replace. As a result, a severe AIDS epidemic can seriously threaten mine production.
- Mining is one of Zimbabwe's key foreign currency earning industrial sectors. In 1994, AngloAmerican assumed that given the age structure of their workforce 25% was HIV positive; current estimates, however, are not known. In order to meet their long-term human resource needs the company resolved to adopt a broad multi-skilling approach. Multi-skilling requires a detailed and comprehensive analysis of all human resources involved. The effectiveness of this strategy is not known.<sup>18</sup>
- **Education.** AIDS affects the education sector in at least three ways: the supply of experienced teachers will be reduced by AIDS-related illness and death; children may be kept out of school if they are needed at home to care for sick family members or to work in the fields; and children may drop out of school if their families can not afford school fees due to reduced household income as a result of an AIDS death. Another problem is that teenage children are especially susceptible to HIV infection. Therefore, the education system also faces a special challenge to educate students about AIDS and equip them to protect themselves.
- In 1993 it was estimated that training costs to replace skilled workers, that is, straightforward replacement, would increase five fold before the turn of the century.<sup>19</sup>
- **Water.** Developing water resources in arid areas and controlling excess water during rainy periods requires highly skilled water engineers and constant maintenance of wells, dams, embankments, etc. The loss of even a small number of highly trained engineers can place entire water systems and significant investment at risk. These engineers may be especially susceptible to HIV because of the need to spend many nights away from their families.

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<sup>17</sup> National Railways Zimbabwe (April, 1997) Presentation at the Intersectoral Committee on AIDS & Employment, (National Meeting on Impact and Interventions in IDS and Employment), Jameson Hotel, Harare.

<sup>18</sup> Statement made by R Demblon at CFU National AIDS Conference 1994.

<sup>19</sup> Forgy L (1993) The Economic Impact of AIDS in Zimbabwe, REDSO/ESA, mimeo

## **Macroeconomic Impact of AIDS**

The macroeconomic impact of AIDS is difficult to assess. Most studies have found that estimates of the macroeconomic impacts are sensitive to assumptions about how AIDS affects savings and investment rates and whether AIDS affects the best-educated employees more than others. Few studies have been able to incorporate the impacts at the household and firm level in macroeconomic projections. Some studies have found that the impacts may be small, especially if there is a plentiful supply of excess labor and worker benefits are small.

There are several mechanisms by which AIDS affects macroeconomic performance.

- AIDS deaths lead directly to a reduction in the number of workers available. These deaths occur to workers in their most productive years. As younger, less experienced workers replace these experienced workers, worker productivity is reduced.
- A shortage of workers leads to higher wages, which leads to higher domestic production costs. Higher production costs lead to a loss of international competitiveness which can cause foreign exchange shortages. Longer-term costs will consist of lost opportunities and the potential loss of skilled teachers, trainers and mentors within education and training institutes. This will have an impact on overall educational levels and skills development, as effective human capital formation is essential for long term development and reduced population growth.
- Lower government revenues and reduced private savings (because of greater health care expenditures and a loss of worker income) can cause a significant drop in savings and capital accumulation. This leads to slower employment creation in the formal sector, which is particularly capital intensive.
- Reduced worker productivity and investment leads to fewer jobs in the formal sector. As a result some workers will be pushed from high paying jobs in the formal sector to lower paying jobs in the informal sector.
- The overall impact of AIDS on the macro-economy is small at first but increases significantly over time.

Even though Zimbabwe has the highest HIV prevalence rates in the world, the macroeconomic impact is still unclear and is an issue of debate. As the country's macroeconomic performance is generally in decline due to cyclical events such as droughts, fluctuating prices of the major exports, such as tobacco, maize and minerals, and excessive government borrowing, the impact of a long term development issue such as HIV/AIDS is not as acute and direct. It is easily foreseeable that a 25% HIV positive rate amongst the adult population will lead to considerable additional expenditure for health care by households, as it is unlikely that the national budget allocation for essential

development services, health, education and welfare, will increase. This means that burden of the AIDS epidemic will be placed on the household. More noticeable will be the longer-term impact through lost opportunity, faltering human and long term development and reduced long term growth. Basic indicators of human development are already being affected and hard won gains, increased life expectancy, infant and child mortality rates, crude death rates, of the post independence era are already being affected significantly.

- According to UN sources, the infant mortality rate in Zimbabwe will double by 2010 due to the impact of AIDS, the child mortality rate will quadruple, the crude death rate will be six times higher, and life expectancy will decrease from 70 to less than 35 years. Overall, population growth will decline by 0.5%, compared to a growth rate of 1.8%, because of the effect of AIDS.<sup>20</sup>
- Early projections from a macroeconomic model found that the need for foreign assistance would increase by 27%, or about Z\$575 million, by the year 2000. In the absence of increased foreign resources, per capita income is significantly lower, falling from the baseline level of Z\$1,607 to Z\$1573. This study also projects that medical care costs will increase from US\$1.6 million in 1991 to US\$8.1 million in 2000, if lifetime costs are assumed to be Z\$1,000 (US\$292) per case.<sup>21</sup>

### What Can Be Done?

AIDS has the potential to cause severe deterioration in the economic conditions of many countries. However, this is not inevitable. There is much that can be done now to keep the epidemic from getting worse and to mitigate the negative effects. Among the responses that are necessary are:

- **Prevent new infections.** The most effective response will be to support programs to reduce the number of new infections in the future. After more than a decade of research and pilot programs, we now know how to prevent most new infections. An effective national response should include information, education and communications; voluntary counseling and testing; condom promotion and availability; expanded and improved services to prevent and treat sexually transmitted diseases; and efforts to protect human rights and reduce stigma and discrimination. Governments, NGOs and the commercial sector, working together in a multi-sectoral effort can make a difference. Workplace-based programs can prevent new infections among experienced workers.
- A project to encourage condom use for commercial sex workers was carried out in Bulawayo between 1989 and 1991. The project included condom distribution

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<sup>20</sup> Cohen, D. (1997) "Socio-Economic Causes and Consequences of the HIV Epidemic in Southern Africa: A Case Study of Namibia," HIV and Development Programme Issues Paper #31, United Nations Development Programme, [Http://www.undp.org/hiv/issues/English/issue31.htm](http://www.undp.org/hiv/issues/English/issue31.htm).

<sup>21</sup> Forgy, L. (1993) "The Economic Impact of AIDS in Zimbabwe," mimeo.

and various health education activities. The project reached a large number of men and women at high risk for HIV infection. The recurrent field cost per condom distributed was US\$0.07, and the recurrent field cost per person contacted was US\$0.34.<sup>22</sup>

- **Design major development projects appropriately.** Some major development activities may inadvertently facilitate the spread of HIV. Major construction projects often require large numbers of male workers to live apart from their families for extended periods of time, leading to increased opportunities for commercial sex. A World Bank-funded pipeline construction project in Cameroon was redesigned to avoid this problem by creating special villages where workers could live with their families. Special prevention programs can be put in place from the very beginning in projects such as mines or new ports where commercial sex might be expected to flourish.
- **Programs to address specific problems.** Special programs can mitigate the impact of AIDS by addressing some of the most severe problems. Reduced school fees can help children from poor families and AIDS orphans stay in school longer and avoid deterioration in the education level of the workforce. Tax benefits or other incentives for training can encourage firms to maintain worker productivity in spite of the loss of experienced workers.
  - *Design feasible strategies for the care needs of chronically ill people.* In countries facing a severe epidemic of HIV/AIDS there is increasing evidence to show that as the HIV epidemic matures into an AIDS epidemic the burden of disease due to HIV/AIDS related illness increases significantly. Increased survival and quality of life is possible outside the formal health care setting; most of the outpatient medical care needs can be met by trained and supported Primary Health Care workers. This can avoid unnecessary illness and admissions and allow for earlier discharge.
  - *Improve household coping capacity.* Ensure that children, single women and the elderly have adequate nutrition, access to education and health through improved targeting of welfare assistance to vulnerable households. In Zimbabwe such targeting will require decentralization, reformed screening techniques, trained staff and community involvement.
  - *Improve smallholder agriculture.* Improving access to essential production factors (labour, land, capital, draft power and management skills) and encouraging crop diversification and non-farm income will have a long-term impact on household well-being. Reviewing land tenure arrangements to protect the occupancy and rights of orphans and women is also an important task.
- **Mitigate the effects of AIDS on poverty.** The impacts of AIDS on households can be reduced to some extent by publicly funded programs to address the most severe

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<sup>22</sup> Forsythe, S, BB Nyathi, M Nhariwa, D Wilson, S Weir. (1992) "Estimating the Costs of AIDS Education and Condom Distribution at Bars, Social Centers, and Residences in Bulawayo, Zimbabwe," unpublished, Family Health International, May 25, 1992.

problems. Such programs have included home care for people with HIV/AIDS, support for the basic needs of the households coping with AIDS, foster care for AIDS orphans, food programs for children and support for educational expenses. Such programs can help families and particularly children survive some of the consequences of an adult AIDS death that occur when families are poor or become poor as a result of the costs of AIDS.

*A strong political commitment to the fight against AIDS is crucial. Countries that have shown the most success, such as Uganda, Thailand and Senegal, all have strong support from the top political leaders. This support is critical for several reasons. First, it sets the stage for an open approach to AIDS that helps to reduce the stigma and discrimination that often hamper prevention efforts. Second, it facilitates a multi-sectoral approach by making it clear that the fight against AIDS is a national priority. Third, it signals to individuals and community organizations involved in the AIDS programs that their efforts are appreciated and valued. Finally, it ensures that the program will receive an appropriate share of national and international donor resources to fund important programs.*

*Perhaps the most important role for the government in the fight against AIDS is to ensure an open and supportive environment for effective programs. Governments need to make AIDS a national priority, not a problem to be avoided. By stimulating and supporting a broad multi-sectoral approach that includes all segments of society, governments can create the conditions in which prevention, care and mitigation programs can succeed and protect the country's future development prospects.*

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